

REMARKS

This Amendment and Response is responsive to the Office Action mailed June 23, 2003. In that Action: claims 10-35 were pending; claim 23 was objected to as including a limitation not found in the specification; claims 10, 12, 13, 16, and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Florence (USPN 5,640,214) in view of Palmer (USPN 5,847,868); claim 11 was rejected under §103(a) as being unpatentable over Florence in view of Palmer and Karasawa, et al. (USPN 5,278,680); claims 10, 13, 14, 18-20, and 22 were rejected under §103(a) as being unpatentable over Taniguchi, et al. (USPN 6,023,253) in view of Palmer; claim 21 was rejected under §103(a) as being unpatentable over Taniguchi in view of Palmer and further in view of Yamazaki, et al. (USPN 5,933, 205); claims 23, 24, 26, and 31 were rejected under §103(a) as being unpatentable over Wood (USPN 6,348,907) in view of Saupe, et al. (USPN 5,315,419); and claims 15, 25, 27-30, and 32-35 were objected to as being dependent upon a rejected base claim, but noted as allowable if rewritten into independent form.

It is noted that the Karasawa reference first cited by the Examiner in this most recent Office Action was not listed on the PTO-892 Notice of References Cited form. Correction is hereby requested. Also, a Supplemental Information Disclosure Statement is provided with other, additional references..

Independent claims 10, 15, 23, and 30 are newly amended. The amendments to claim 15 are made merely to incorporate the limitations of the claims from which it depends. This claim should now be allowed, as it had been noted to contain allowable subject matter. The amendments to claim 30 are made to include the limitations of the claims from which it depends and to address the Examiner's objection to terminology not found in the specification. This claim should now be allowable, as it had been noted to contain allowable subject matter. The amendments to claim 10 are intended to clarify the invention and to even further distinguish over the prior art of record. The last amendment to claim 23 is made for the same reason, while each of the previous amendments to claim 23 are intended to address the Examiner's objection to limitations not found in the specification. Reconsideration of the claim rejections is hereby requested.

The objection to claim 23 has been addressed by the amendment to claim 23. Similarly, the amendment to claim 23 addresses the objections to dependent claims 24-29 and 31-35. Claim 30 has been modified into independent form and also has similar amendments to address the same objection.

Independent claim 10 has been rejected as obvious in light of the combination of Florence and Palmer and in light of the combination of Taniguchi and Palmer. Florence is seen to disclose an optical system for use with displays, printers, or cameras in which light is collected from a light source and reflected towards a special light modulator (Fig. 12). It is noted that the light source, the light collecting surfaces, and the mirrors are all significantly spaced apart from the spatial light modulator 15.

Palmer appears to disclose a night vision binocular assembly in which a base structure 40 (Figs. 2 and 4) supports various optical elements that are standard in binocular assemblies.

Taniguchi appears to disclose an image displaying apparatus in which light from a light source is reflected onto a microdisplay. It is noted that in all embodiments the light source appears to be spaced significantly further away from the microdisplay than is the reflector.

Claim 10, as now amended, relates to a display system with a support surface, a source of light located proximate to the support surface, and a microdisplay located proximate to the support surface. The system also includes a reflector located above the support surface and spaced apart from the support surface in position to reflect the light from the source of light to eventually illuminate the microdisplay. None of the cited references include the combined limitations of the source of light being located proximate to the support surface, while the reflector is spaced apart from the support surface and thus, spaced apart from the microdisplay. Since none of the references show, teach, or suggest this important combination of limitations, it is respectfully submitted that claim 10 and all claims dependent thereon (including claims 11-14 and 16-22) are patentable.

Independent claim 23 has been rejected based on the combination of Wood and Saupe. Wood appears to disclose a display apparatus including a microdisplay (a digital micromirror device), three differently-colored light sources, and an optical element to direct light from the light sources toward the microdisplay (Fig. 4). It is noted that each of the light sources and the optical element are significantly spaced apart from the microdisplay.

Saupe appears to disclose a method for promoting “bookshelf” textures in liquid crystal light modulators. Figure 6 shows a plurality of support layers between which the layer of liquid crystal material is sandwiched.

Claim 23, as now amended, relates to a display system with a microdisplay that lies substantially in a plane, and a source of light located proximate to the plane, the source being oriented to direct light up and away from the plane. The system also includes an optical element

located above the plane in position to direct light from the source of light toward the microdisplay, the optical element being substantially further away from the microdisplay than is the source of light. As can be appreciated, none of the references alone or in combination teach or suggest the combined limitations of the source of light being located proximate to the plane while the optical element that directs light from the light source toward the microdisplay is substantially further away from the microdisplay than is the source of light. For these reasons, it is respectfully submitted that claim 23 and all claims dependent thereon (including claims 24-29 and 31-35) are patentable.

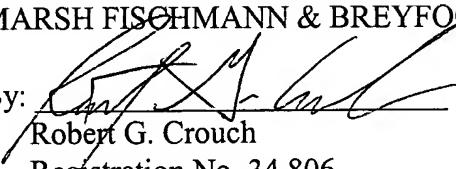
New claims 36-38 are believed to be patentable for at least the following reasons. As to claim 36, none of the cited prior art teaches or suggests the combination of a microdisplay, a source of light, and a reflector in which the source of light is located within a distance of the microdisplay, the distance being less than the lateral extent of the generated image on the microdisplay. As to claim 37, none of the cited prior art teaches or suggests the combination of a microdisplay, a source of light, and a reflector in which the source of light is closer to the microdisplay than to the reflector. As to claim 38, none of the cited prior art teaches or suggests the combination of a reflective microdisplay and a source of light in which the source of light is located within a distance of the microdisplay, the distance being less than the lateral extent of the generated image on the microdisplay.

Based on the foregoing comments, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecute and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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